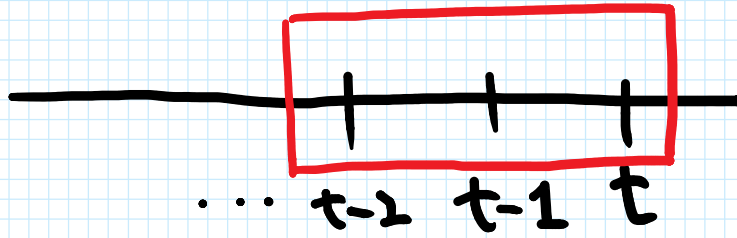
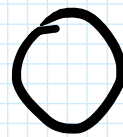
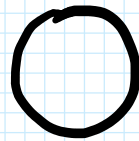
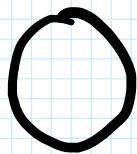
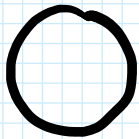


합성곱

1D Kernel



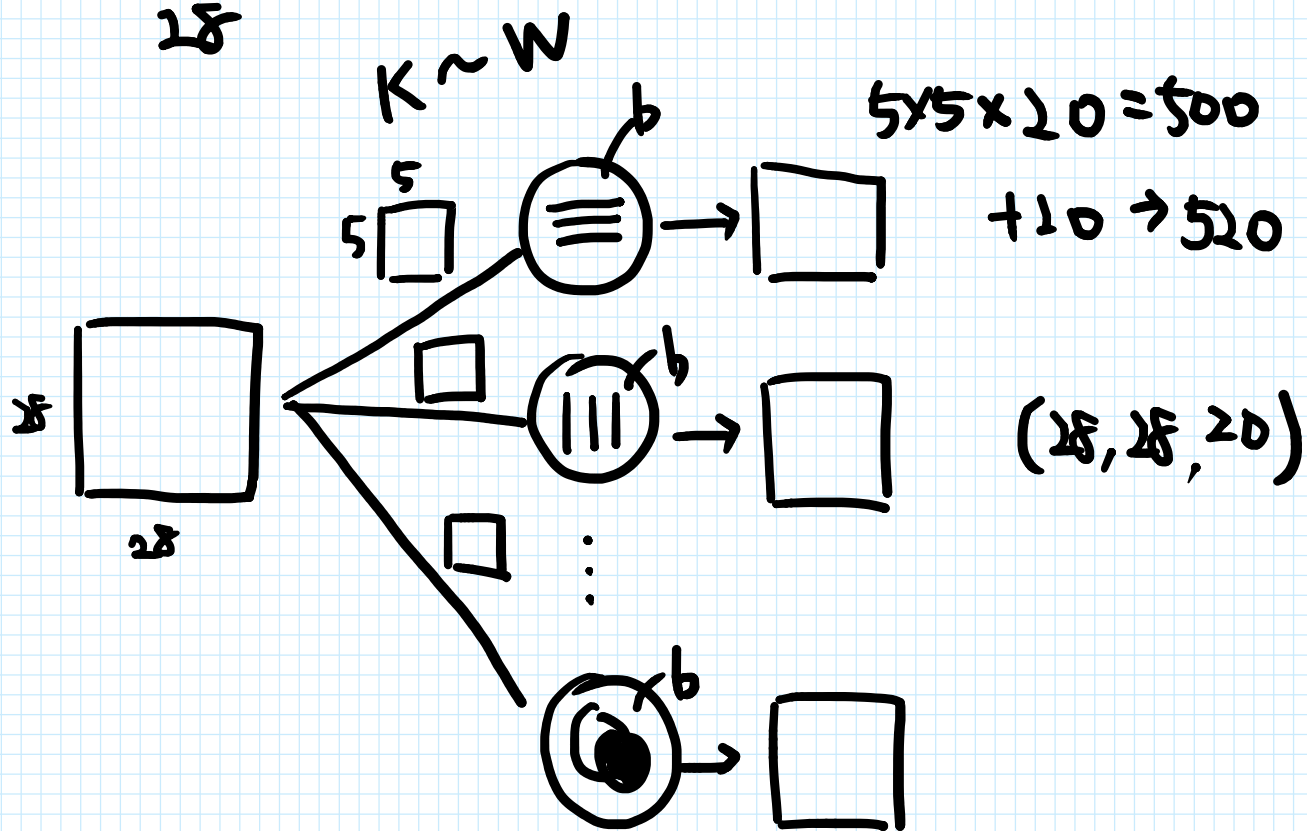
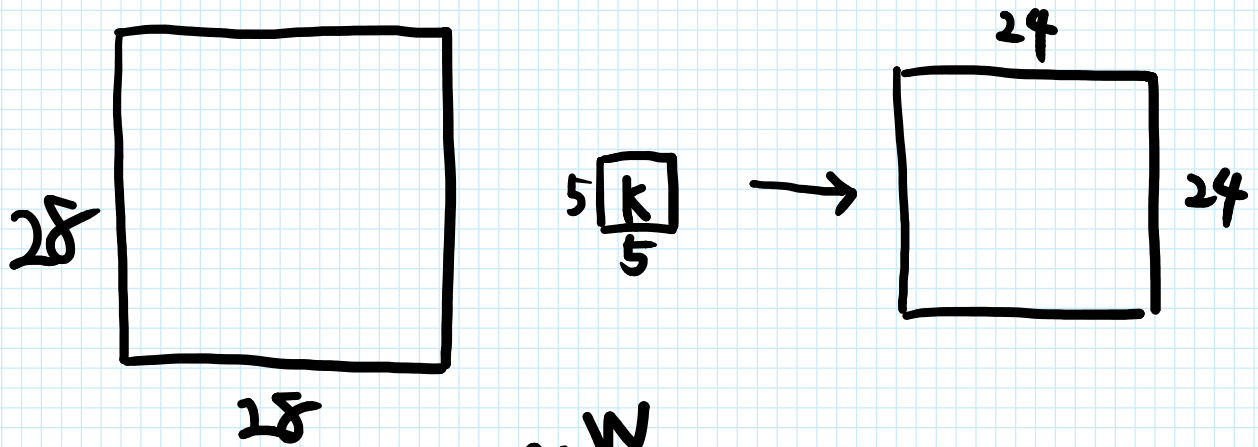
$X \otimes K$



Conv2D(

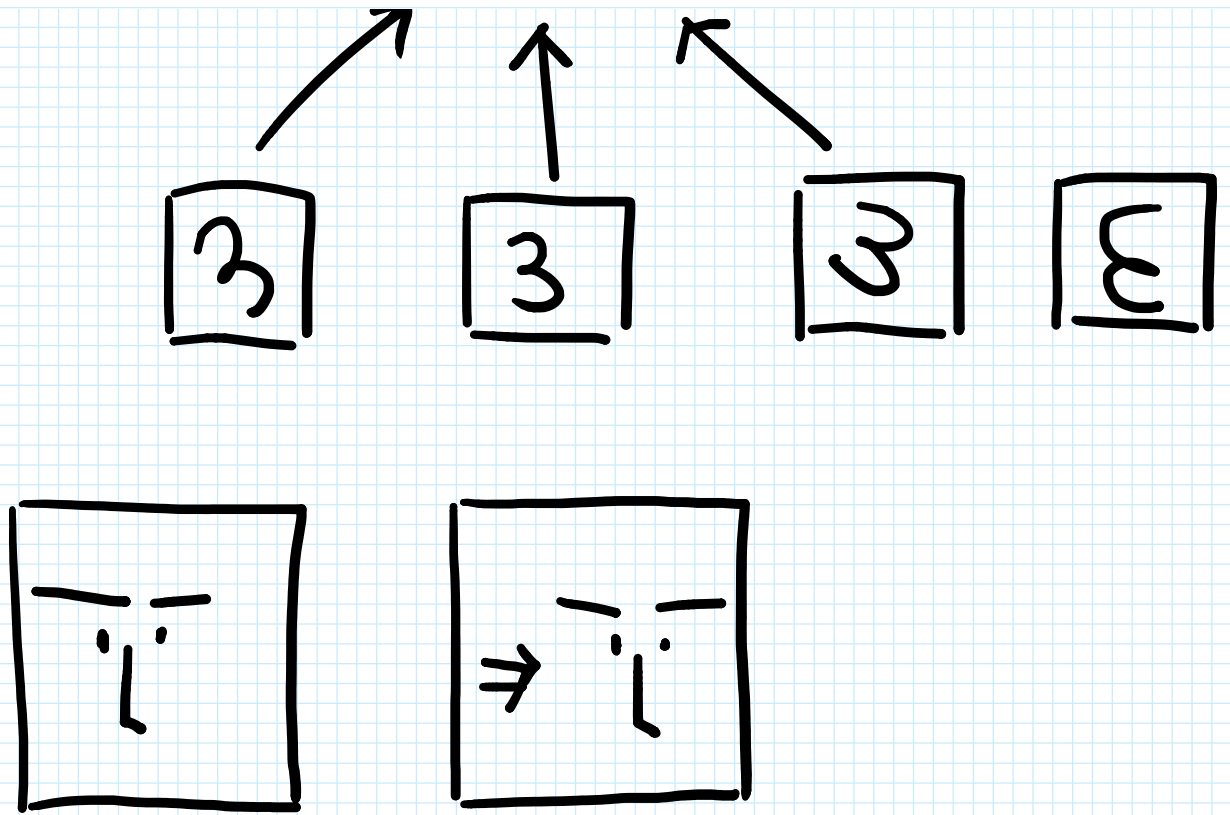
, kernel\_size=(5,5)

input\_shape = (28, 28, 1)



Pooling

3



L	R
---	---

-1	1
----	---

R-L

```
array([[162, 7, 5, ..., -6, -5, -2],
       [166, 3, 3, ..., -3, -3, 0],
       [169, 0, -1, ..., -3, -2, 0],
```

```
array([[162, 7, 5, ..., -6, -5, -2],
       [166, 3, 3, ..., -3, -3, 0],
       [169, 0, -1, ..., -3, -2, 0],
       ...,
       [207, -11, 13, ..., -1, 1, 3],
       [193, 8, 0, ..., -7, -6, -1],
       [203, 1, 4, ..., 0, 5, 7]])
```

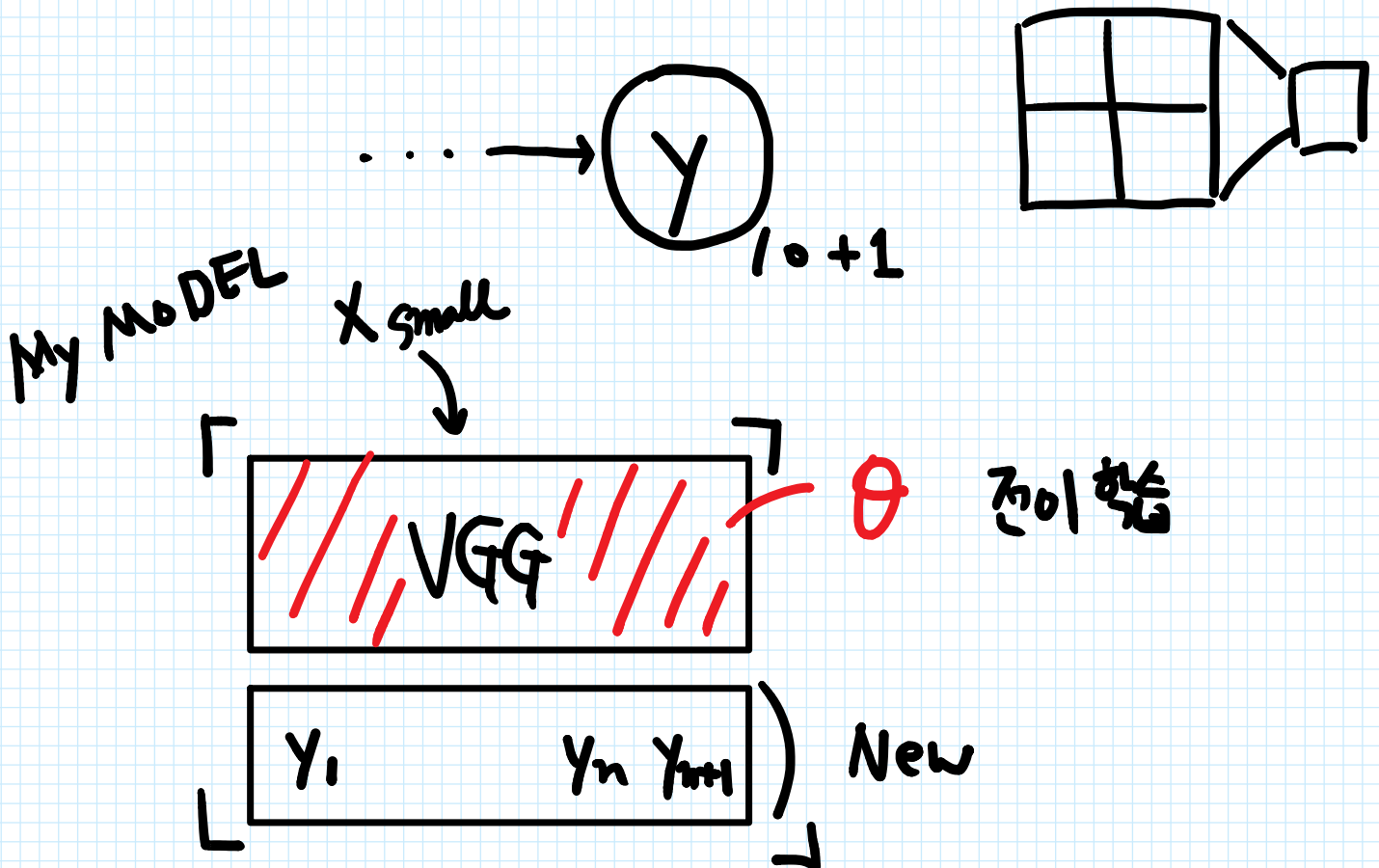
In [45]:

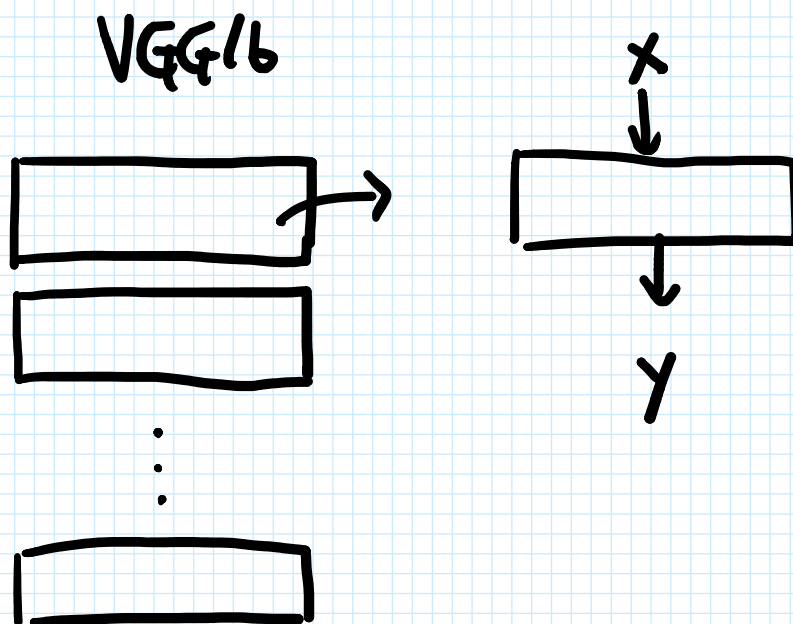
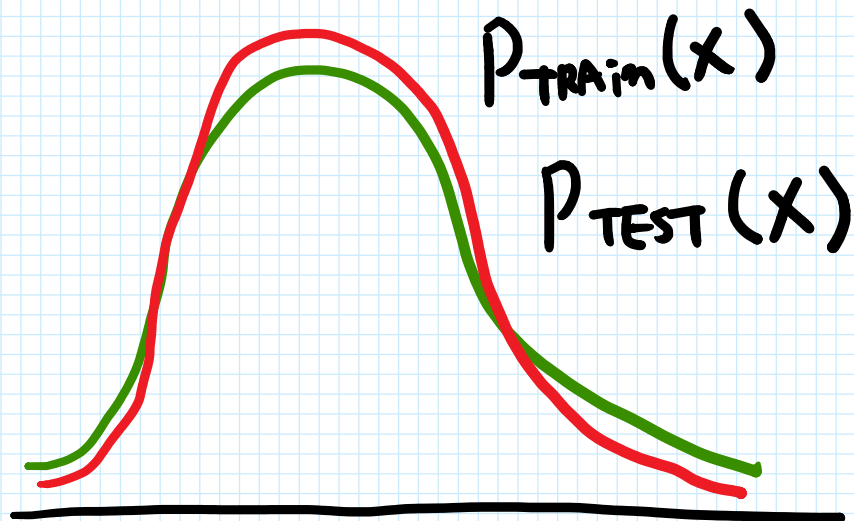
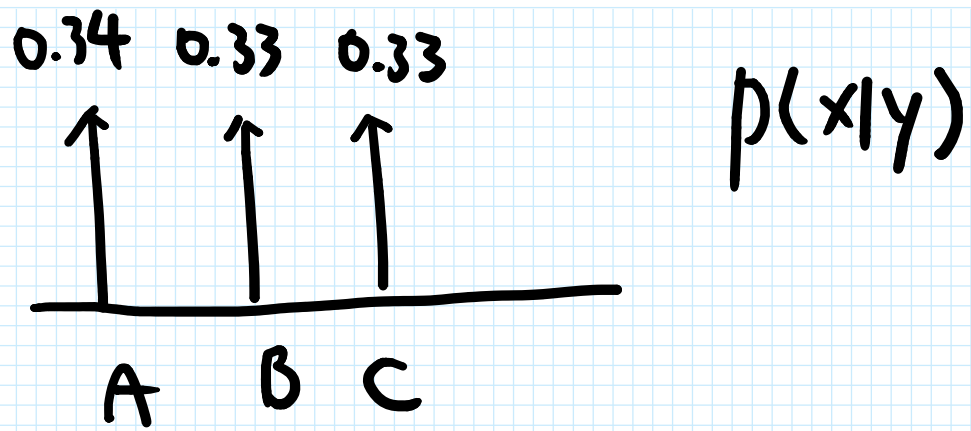
```
mozzi[:, :, 0]
```

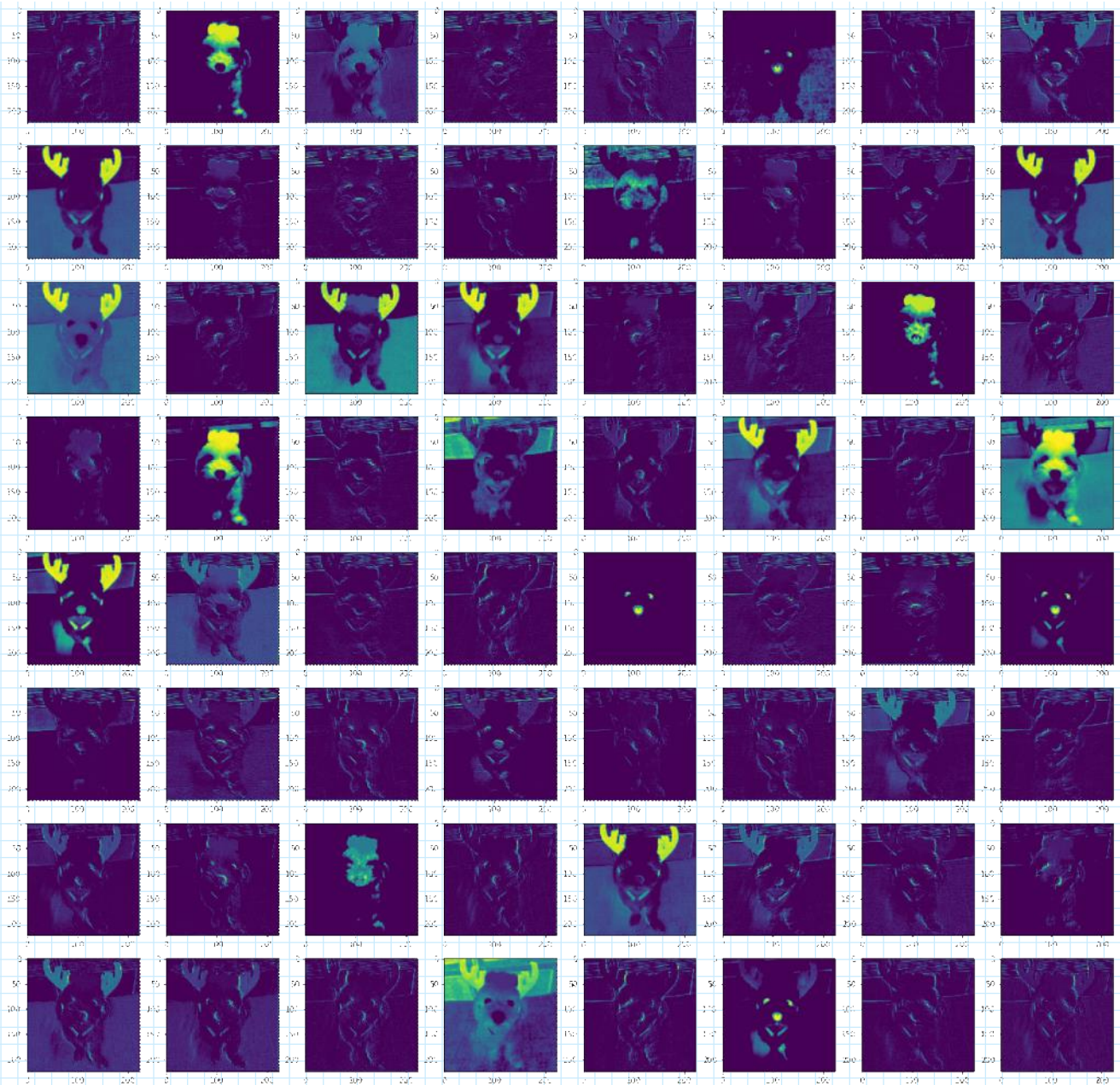
Out[45]:

**L R**  

```
array([[162, 169, 174, ..., 201, 196, 194],
       [166, 169, 172, ..., 196, 193, 193],
```

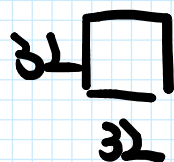


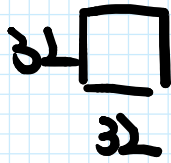




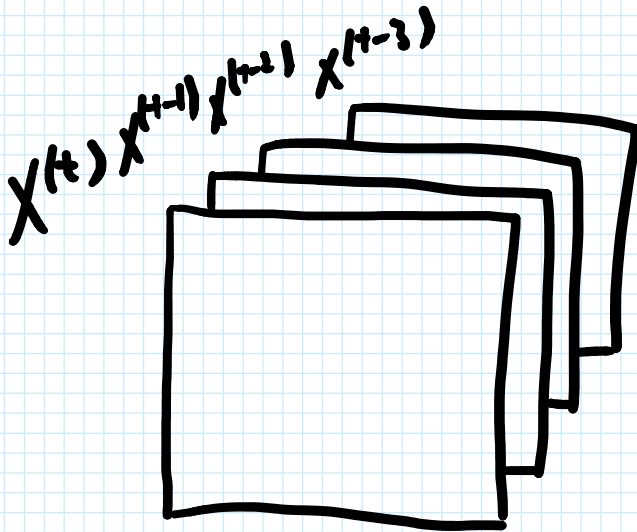
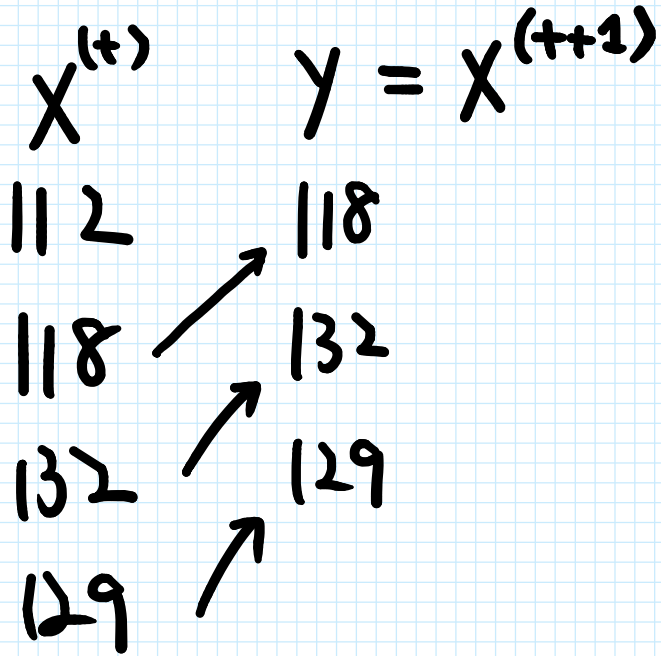
CIFAR

ImageNet





RNN



시간  
 ↓  
 (#샘플,  $\frac{1}{3}$ , #특징)